

ABSTRACT

TWIN-CLUTCH MANUAL GEARBOX

5 A twin-clutch manual gearbox for an engine, the gearbox including a first input shaft (5) and a second input shaft (6) to which engine rotation is selectively input via individual clutches (C1, C2). The second input shaft (6) is rotatably fitted onto the first input shaft (5) so that the first input shaft (5) protrudes from a rearward end of the second input shaft (6) farthest from the engine. First gearsets
10 (G1, G3, G5, GR) associated with a first gearbox speed grouping are located between the rearward end of the protruding first input shaft (5) and a layshaft (15) located substantially parallel to the first and second input shafts (5, 6) such that appropriate transmission is enabled for respective ones of the first gearsets (G1, G3, G5, GR). Second gearsets (G2, G4, G6) associated with a second
15 gearbox speed grouping are located between the second input shaft (6) and the layshaft (15) such that appropriate transmission is enabled for respective ones of the second gearsets (G2, G4, G6), whereby rotation according to a selected gear after a gearchange is output in an axial direction from a rearward end (5a) of the first input shaft (5) or of the layshaft (15). It is a feature of the twin-clutch manual
20 gearbox that the second gearsets (G2, G4, G6) are positioned such that the gearset (G2) associated with the lowest gearbox speed of the second gearbox speed grouping which is capable of providing a bearing retaining space between the first input shaft (5) and the second input shaft (6) is positioned farthest from the engine, and the gearset (G6) associated with the highest gearbox speed of the
25 remaining gearbox speeds of the second gearbox speed grouping is positioned closest to the engine.

[Figure 2]